

Virginia Saltwater Development Fund

Evaluation of a Proposal for the Development of a Research or Data Collection Project

Project Number: 1206-15

Date: 2/27/07

Title: O) Response of Summer Flounder to Hypoxia in Chesapeake Bay: Physiological Tolerances and Shifts in Habitat Use.

“The Virginia Saltwater Recreational Fishing Development Fund is to be used solely for the purpose of conserving and enhancing finfish taken by recreational anglers, enforcing laws related to natural resource conservation, improving recreational fishing opportunities, obtaining necessary data and conducting research for fisheries management, and creating or restoring habitat for species taken by recreational fishermen.”

Code of Virginia, Section 28.2-302.3

NOTE: Please read the entire scoresheet before beginning, then provide comments, and circle () the appropriate score for each item. Thank You.

A. Problem Description and Resolution (20 points)

- 1. Comment on the adequacy of the problem description, background information, knowledge of available literature/data sources, and anticipated benefits.**

The background information, knowledge of literature available, and anticipated benefits are all well stated. However, the relevance of the problem description and expected benefits may, to some extent, be overemphasized. In no way does this proposal appear to make claims that cannot be produced by this study. Yet, the importance of the practical use of the knowledge and data that will potentially be obtained by this study may seem trivial to the average recreational fisher.

- 2. Describe your views on the conceptual approach to solve the problem.**

A telemetry study in such a confined area should produce solid results on flounder movement within the test site (Wachapreague area). Assuming a decent amount of response data (flounder movement detected by the acoustic receivers), some predictive power should be attainable regarding flounder movement in relation to several parameters (depth, temperature, dissolved oxygen, bottom and habitat type and sediment characteristics). It appears use of a GLM would necessitate lumping the parameters mentioned above in their relationship to flounder movements.

Provided adequate numbers of healthy test subjects, the laboratory objectives should be able to be achieved.

SCORE (Circle one)	Poor				Excellent
	0	5	10	15	20

B. Soundness of Project Design/Technical Approach (25 points)

1. Is there sufficient information to technically evaluate the proposal?

There is sufficient information to evaluate the methods of both the field and laboratory components. The methods appear sound. Data collection for the acoustic receivers and data sondes is critical, and is the one aspect that has the most potential to inhibit the results of the study. Two suggestions this reviewer would give are both included in this proposal already. The PIs' intent to test the signal detection capabilities for each site before the study begins is strongly encouraged, as is periodic retrieval of data from the sondes.

2. What are the strengths/weaknesses of the project design (thoroughness, practicality, methods, integration with other work, etc.)?

The project proposal is quite thorough, and all methods seem well founded. Dr. Brill and Dr. Fabrizio have both worked on projects that will tie-in, and build on this project directly. Their combined experience and expertise is certainly a plus for this project. The site choice may be the biggest strength of this project. The focus on this one area which is known to regularly encounter low oxygen conditions and substantial numbers of flounder is important. Also a major factor in considering this site choice would be the relative confinement of the creeks, which should maximize the detection of tagged flounder.

SCORE (Circle One)	Poor					Excellent
	0	5	10	15	20	25

C. Project Management and Experience/Qualifications of Personnel (15 points)

What is your opinion of the experience and capabilities of the Principal Investigator(s) to manage and conduct the work, the availability of facilities, and education and experience of assisting personnel?

The experience and capabilities of the co-PIs, Dr. Fabrizio and Dr. Brill, are exceptional. There should be no question they can conduct this study, the same can be said of the facilities. There was no information provided to evaluate the assisting personnel.

SCORE (Circle one)	Poor			Excellent
	0	5	10	15

D. Project costs (15 points)

Is the budget realistic and reasonable? Indicate any unreasonable costs.

There do not appear to be any unreasonable costs.

SCORE (circle One)	Poor			Excellent
	0	5	10	15

E. Value of the Project to Fisheries Managers (25 points)

Do you believe the results of this project will further management of the species described? Will the results be useful to managers?

Knowledge of habitat and biological requirements for a species are included in Fisheries Management Plans (FMPs), and the expected results of this project would very much contribute to the understanding of such requirements for summer flounder. Furthermore, this data will be valuable to ecosystem based management, which is what state, interstate, and federal agencies are moving towards. However, the management process has not always taken the habitat and biological requirements of an FMP into consideration. It is too early to say, how such information will play out in the management process once ecosystem based approaches are relied upon.

On a more specific note, one of the expected benefits suggested “guidelines to assist anglers in avoiding capture of stressed fish”. I think such guidelines, though of interest to the most conservation minded angler, are far beyond the reach of management or regulatory action. The challenge of managing a species for something as temporally and spatially specific as a hypoxic event also seems rather far reaching at this time. The proposal suggests a management implication if it can be shown that growth of flounder is affected by hypoxic conditions. It would also be extremely difficult to weight a model based on the knowledge that some portion of the population may have been exposed to hypoxic conditions. Considering the nature of low oxygen occurrences, it would also be controversial to attempt to restrict commercial or recreational activity in certain areas to protect flounder based solely on this study.

SCORE (circle one)	Poor				Excellent
	0	5	10	15	20 25

PLEASE ADD ANY FURTHER COMMENTS ON THE PROPOSALS BELOW:

Whether or not the results of this study do provide indispensable data for future management, it should be considered if such a study should depend solely on recreational funding.